WE CLAIM:

1. A rotary thermoforming machine comprising, in combination,

a first loading station for loading first thermoformable panels,

a second loading station for loading second thermoformable panels,

at least one heating station for heating said panels,

a thermoforming station having a pair of opposed, translatable platens adapted to receive mold sections,

an unloading station, and

a carousel assembly for receiving and translating thermoformable panels between said stations.

2. The rotary thermoforming machine of claim 1 further including a drive assembly adapted to intermittently rotate said carousel assembly.

3. The rotary thermoforming machine of claim 1 further including a sensor disposed adjacent said at least one heating station for sensing sag of said thermoformable panels.

4. The rotary thermoforming machine of claim 1 wherein said loading stations include suction lift cups.

5. The rotary thermoforming machine of claim 1 wherein said thermoforming station further includes drive means for raising and lowering said platens and locking means for securing said platens together.

6. The rotary thermoforming machine of claim 5 wherein said drive means includes a plurality of stationary gear racks received within bushings and engaged by spur gear driven by a motor drive assembly.

7. The rotary thermoforming machine of claim 5 wherein said locking means includes a plurality of bayonets having bayonet pins

disposed for motion with one of said platens and a like plurality of bayonet sockets disposed for motion with another of said platens.

8. The rotary thermoforming station of claim 1 further including a pair of mold sections disposed on a respective one of said pair of platens and plurality of air bladders disposed between one of said mold sections and one of said platens.

9. A rotary thermoforming machine comprising, in combination,

a carousel having a plurality of panel receiving frames,

a first loading station for loading first thermoformable panels into said frames,

a second loading station for loading second thermoformable panels into said frames,

at least one heating station for heating said thermoformable panels,

a thermoforming station having vertically translatable mold sections adapted to engage said thermoformable panels, and

an unloading station, wherein said carousel assembly transfers such thermoformable panels between such stations.

10. The rotary thermoforming machine of claim 9 further including a second heating station disposed adjacent said at least one heating station.

11. The rotary thermoforming machine of claim 9 further including an insert loading assembly disposed adjacent said thermoforming station.

12. The rotary thermoforming machine of claim 9 wherein said thermoforming station further includes drive means for raising and lowering said platens and locking means for securing said platens together.

13. The rotary thermoforming machine of claim 12 wherein said drive means includes a plurality of stationary gear racks received within bushings and engaged by spur gear driven by a motor drive assembly.

14. The rotary thermoforming machine of claim 12 wherein said locking means includes a plurality of bayonets having bayonet pins disposed for vertical translation with one of said platens and a like plurality of bayonet sockets disposed for vertical translation with another of said platens.

15. The rotary thermoforming machine of claim 9 further including a drive assembly adapted to intermittently rotate said carousel.

16. The rotary thermoforming machine of claim 9 further including a sensor disposed adjacent said at least one heating station for sensing sag of said thermoformable panels.

17. The rotary thermoforming machine of claim 9 wherein said carousel frames include clamp members adapted to engage said thermoformable panels and actuators coupled to said clamp members.

18. The rotary thermoforming machine of claim 9 wherein said first thermoformable panels have distinct surface features from said second thermoformable panels.

19. A rotary thermoforming machine comprising, in combination,

a carousel having a plurality of panel receiving frames,

a drive assembly adapted to rotate said carousel,

a first loading station for loading thermoformable panels into said carousel frames,

a second loading station for loading second thermoformable panels into said carousel frames,

at least one heating station for heating said thermoformable panels,

a thermoforming station having vertically translatable mold sections adapted to engage said thermoformable panels, and

an unloading station, wherein said carousel assembly transfers such thermoformable panels between such stations.

20. The rotary thermoforming machine of claim 19 further including a second heating station disposed adjacent said at least one heating station.

21. The rotary thermoforming machine of claim 19 further including a sensor disposed adjacent said at least one heating station for sensing sag of said thermoformable panels.

22. The rotary thermoforming machine of claim 19 further including a plurality of air bladders disposed between one of said mold sections and one of said platens.

23. The rotary thermoforming machine of claim 19 further including an insert loading assembly disposed adjacent said thermoforming station.

24. The rotary thermoforming machine of claim 19 wherein said thermoforming station further includes drive means for raising and lowering said platens and locking means for securing said platens together.

25. The rotary thermoforming machine of claim 24 wherein said drive means includes a plurality of stationary gear racks received within bushings and engaged by spur gear driven by a motor drive assembly.

26. The rotary thermoforming machine of claim 24 wherein said locking means includes a plurality of bayonets having bayonet pins disposed for vertical translation with one of said platens and a like plurality

of bayonet sockets disposed for vertical translation with another of said platens.

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